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ELECTRIC RAILWAY STOCKS

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The 1909 edition of "American Street Railway Investments" reports that the total amount of capital stock of electric railway companies outstanding then was \$2,444,892,057; the funded debt, \$2,112,244,086; a total of \$4,557,136,143. By far the greater part of the stock—almost nine-tenths of it, in fact—is common stock.

It is impossible to obtain accurate information as to the total amount actually invested in construction and equipment. The item "cost of construction," as carried on the books and balance sheets, gives, in most cases, no idea whatever of the cash investment. Even the real cost of construction or cash investment is not a proper measure of stock values either present or future. It is merely a matter of academic interest. It would not show even the "physical valuation" now harped upon particularly in discussions of city lines, and still less would it show the "cost of duplication" or the "value as a going concern," the latter of which is, of course, the absolutely fundamental point. The intent of this article is to give merely the most important general tendencies affecting stock values of the different types of electric railways and likely to affect them in the future, treating of the history of the past investment and capitalization only as it may throw light upon the present and the future. Smaller details and statistics cannot, as a rule, be given in the limited space allowed, nor can application of the general principles and influences be made to individual properties.

City Lines

The capitalization of city street car lines is in large part the result of evolution, representing in most cities, in addition to cost of construction, the legitimate but enormous cost of substituting the cable for the horse car, and electricity for the cable; the replacement of 18-foot cars by others 25 feet, then 30, 40 and 50 feet in length, and these improvements in turn necessitating 60-

instead of 40-pound rails, and then rails of 80, 100, 120 and even 140 pounds, and similar rapid displacement of power-house machinery, often when still good. Such increases in capitalization represented the betterments needed for the service of the public, though now the demands for the reduction of dividends and interest charges to the basis of return on a "physical valuation" would reject them as illegitimate. Much of the capitalization was, of course, water, having been freely thrown in during various consolidations and reorganizations, and making still heavier the burden of fixed charges and dividends.

It was thought by many that the steady growth of the cities and the natural proportionately greater increase in rides per capita, together with the marked economies due to the physical improvements and consolidations, would enable the companies to meet readily the increased fixed charges and to continue and even to increase the dividends.

These high hopes, however, have not in the main been realized, as an examination of the market quotations of the stock will reveal. In many cases, in fact, these have suffered severe declines from the figures established seven or eight years ago, when hopes were high and speculation rife.

For example, comparing the quotations of 1902 with those of 1909, we find that the Boston Elevated, with a continuous dividend of 6 per cent., has shown some decline, the high for 1902 being $173\frac{1}{2}$ and the low $149\frac{1}{2}$, and 1909, high, 135; low, $124\frac{1}{4}$. Brooklyn Rapid Transit, 1902, high, 78; low, $54\frac{3}{4}$; dividend, 0, and 1909, high, $82\frac{7}{8}$; low, 67; dividend, 3, shows that the increased dividend had been largely discounted seven years before its declaration. Chicago Union Traction, 1902, high, 23; low, $10\frac{3}{4}$; dividend, 0, and 1909, high, 7; low, $3\frac{1}{2}$; dividend, 0, has steadily declined. The Cleveland lines, previously capitalized more conservatively than those of most other cities, show clearly the possibilities of "physical valuation" and lower-fare political agitation. The 4 per cent. dividend has disappeared, and the decline is well represented by the scaling down of the stock in exchanging Cleveland Electric for Cleveland Railway, the ratio having been 100 to 55. The Detroit United, in spite of owning some excellent interurbans, has, because of somewhat similar conditions, been forced to pass its 4 per cent. dividend, and shows a high of 97 and low of 75 for

1902, as against a high of 72 and a low of 56 for 1909. Interborough-Metropolitan shows the usual downward drift, while Philadelphia Rapid Transit, a particularly gross case of overcapitalization, the underlying securities alone representing a much greater capitalization than the whole road should have, shows but a small increase in spite of the continual increase in the amount "paid in" from \$5 in 1902 to \$50 in 1909. Seattle Electric, 1902, high, $87\frac{1}{2}$; low, 58; dividend, 0, and 1909, high, $117\frac{1}{2}$; low, $90\frac{1}{4}$; dividend, $7\frac{1}{2}$, shows the effect of the usually efficient Stone and Webster management and the remarkable growth of Seattle in overcoming the effects of basic tendencies. Toledo Railways and Light, 1902, high, 38; low, $32\frac{1}{2}$; dividend, 0, and 1909, high, $13\frac{3}{8}$; low, 7; dividend, 0, shows merely the drift of general tendencies, which, however, usually affect lines in cities the size of Toledo less severely than those of larger cities. Twin City Transit, 1902, high, 129; low, 107; dividend, 5 per cent., and 1909, high, $116\frac{7}{8}$; low, 97, shows but small decline and has continuously maintained the 5 per cent. dividend. The list could be greatly enlarged, but the showing would still be that of the same general downward drift, with an exception here and there of stability, or even a raise in market quotations, owing to some unusual or special local conditions.

Prices of material and labor have been rising, tending to make the sort of ride formerly furnished cost more than before, while the ride itself is longer and the accommodations better. And, worst of all, the short journey in a lightweight horse car, drawn slowly upon a light, cheap track, was paid for by the five cents of those days, with its much greater purchasing power, yet the tendency of late years has been to decrease the fare paid more and more below the traditional five cents, even though this is itself steadily depreciating in purchasing power.

The problems confronting city lines are admirably stated by a number of eminent and successful street railway men in the January 1, 1910, issue of the *Electric Railway Journal*, under the title, "Electric Railway Situation; a Review of the Problems of the Year." Their opinions in regard to the prospects of future financial success without increase of rates of fare are in substantial agreement and uniformly pessimistic. Several of these articles will be quoted at considerable length.

W. H. Glenn, manager of railways, Georgia Railway and Electric Company, in an article entitled "Fares on City Lines," says: "This rapid process of evolution naturally causes retrospection, and we recall the days of stage coaches and horse cars. Twenty years ago electric cars were unknown and horse cars were the greatest medium of city travel. This method was slow and tedious; the driver was the change maker and the passenger was the collector. The longest ride at that time was not more than two miles and the fare was five cents, just as it is to-day. The investment in equipment was comparatively small, yet no complaint was made that the fare was too much. This fare of five cents has been universally adhered to from that day to this, notwithstanding the fact that the facilities offered by the transportation companies to-day are vastly more rapid, more comfortable, more convenient, more safe, more reliable, and the average maximum haul is at least five times as great. . . . In reality, the fare of to-day is only one-half of that collected twenty years ago, for in that length of time the price of almost everything entering into the cost of street railway transportation has increased 100 per cent. Lumber that was bought then for \$10 per 1000 feet is now \$28; steel rails that were bought then for \$24 per ton are now \$42, and a ton does not go half so far; copper, once at twelve cents per pound has lingered around twenty cents for the past few years, and has gone as high as twenty-six cents. In 1898 day laborers could be employed for seventy-five cents per day, while in 1907 they received \$1.50 per day and their work was not nearly so satisfactory. Twenty years ago such things as damage claims were almost unknown, while to-day they appear in hordes, consuming from 5 to 15 per cent. of the gross revenue of the companies. In like manner all other costs have increased; yet all this time the fare of five cents has remained the same, while five times as good service has been given at an increased cost to-day of 100 per cent. over what the same service could have been furnished for twenty years ago. . . . The men, women and children who ride on the cars receive more for their labors or for their wares than they did ten years ago. Every one of them pays more not only for the luxuries of life, but for its necessities, than ten years ago. When a laborer walks into a butcher shop the buying power of the five-cent piece in his hand decreases 50 per cent. under that of ten years ago; yet the instant he steps on a car and

tenders it to the conductor in payment for his transportation it immediately increases 500 per cent. in buying power."

C. L. S. Tingley, second vice-president of the American Railways Company, says in part: "The nickel has been purchasing more and more year by year in the way of street car transportation; its power to purchase in other directions has been declining year by year; wages have been steadily advancing, and if the demands made by organized labor and the platforms which they are promulgating are any criterion, the end is not yet. Materials have kept pace with or outrun labor. In a table published in a recent number of the *Railway World*, giving the costs of materials used on steam roads, all of which would enter largely into the operation of electric roads, for a ten-year period from 1897 to 1907 the increase ranges from 24.70 per cent. on brick to 136.34 per cent. on pig iron. It is apparent that something must be done if the electric road is to stay in business and make a return on the capital invested. The most obvious means of meeting this difficulty would seem to be the adoption of the system so prevalent in Europe, commonly known as the zone system, whereby the rate of fare paid by each individual is proportionate to his ride. This is undoubtedly a logical and scientific method; it is, however, open to a number of objections. The American public has been educated to the other system, and the outcry against any change would undoubtedly be great, particularly as it would, undoubtedly, be supported by philanthropic individuals and associations on the ground that the zone system tends to create congested districts, forcing workingmen into the tenements, producing unsanitary conditions, and handicapping his children in their physical and moral growth." Mr. Tingley might truthfully have added, that, as far as the near future is concerned, the zone system is rendered impracticable in almost every city in the United States because of existing franchises, usually still with many years to run and often expiring part at a time.

Edwin S. Webster, of Stone & Webster, of Boston, a firm that has been unusually successful in building and operating important and widely scattered electric railway properties, in an article entitled "Comments on the Electric Railway Situation," says: "The problem of securing an adequate revenue from passenger fares appears to be the most serious issue now confronting the electric railway industry. In the early days of electric transportation the

five-cent fare unit was, on the whole, appropriate to the standards and cost of service rendered. The rolling stock was composed of small, light cars, usually of the single-truck type; the speed of operation was relatively low; the power demands per car were moderate; the cost of labor and materials was far below present figures; comparatively light roadbed, track and line construction met the requirements of the traffic, and the investment per mile of track varied from one-half to one-sixth that of the present, depending upon the size of the community served and other local conditions. Even in the larger cities the transfer facilities were greatly limited, and the average haul per passenger was much shorter than to-day.

"The standards and costs of service now rest upon an entirely different plane. The expansion of city systems into suburban territory has raised the average length of haul independently of other causes. The transfer situation has become serious, through its extension beyond reasonable limits. The purchasing power of the nickel from the standpoint of the passenger has greatly increased. From the point of view of the operating company, however, the nickel pays for the conduct of considerably less transportation than a few years ago. The cost of power has been reduced to some extent by improved technical administration (and increased technical efficiency) of generating and distributing equipment, but not enough to offset the enlarged demands of heavier cars operated at increased speed. The growth in the size and weight of cars has increased the rolling stock investment account and necessitated the expenditure of large sums of money for physical plant, including heavier track and more permanent roadbed construction, multiplied capacities in power stations and lines and enlarged facilities for the economical maintenance of equipment. The advances of the past few years in the cost of labor and material have placed a premium upon new construction work and have narrowed the margin between receipts and expenses. Under the early conditions, average fares of from one to one and one-quarter cents per mile enabled the companies to make progress; to-day these returns are insufficient to provide a reasonable dividend in many properties and maintain the most modern standards of service. The increased length of ride now possible upon a single fare of five cents makes it difficult for the larger city properties to earn a reasonable dividend, and only in a less degree does this condition bear upon the

companies of smaller size. The relatively great density of traffic in the larger city is not sufficient to offset the burdens of transfer, the extension of lines into outlying districts and the rising cost of operation.

"In the larger cities there must be some change in the transfer situation in order to secure a fair return to the companies. Scientific administration of properties is insufficient to meet the rising costs of service rendered to the traveling public. The average haul per fare must be reduced through the restriction of transfer privileges or the imposition of some sort of a charge for transfers issued. The policy of selling fares at reduced rates must be closely scrutinized, and in many instances abolished. The fare unit in itself will have to be raised to six cents or over in cases where it is clear that a line cannot be operated with reasonable profit on a five-cent fare basis, or else the fare zones will have to be shortened. *Otherwise a line honestly capitalized will have to reduce its capital to a point below the actual investment in the property.* Denial of a reasonable return upon a proper investment and insistence upon the highest standards of service closely approach confiscation."

These authoritative opinions, together with others in the January 1, 1910, issue of the *Electric Railway Journal* by a number of authorities, including R. P. Stevens, president of the Lehigh Valley Transit Company; Charles S. Sergeant, vice-president of the Boston Elevated Railway; Thomas McCarter, president of the Public Service Corporation of New Jersey, and J. M. McMillan, general manager of the Pacific Electric Railway, agree in their lack of belief in future financial success without increase in fare. While the cities were originally glad to give long-term franchises free in order to secure the advantage of the primitive service of the early days, yet now that the enormous investments have been made and are worth comparatively little without the renewal of the franchises from time to time, the cities have the whip hand and there is a constant and pressing demand for extensions and improvements of lines, for reduction of capitalization and earning to "physical valuation" figures, for elevated roads and subways, for increased direct taxation or indirect taxation by means of payments for franchises, profit sharing, free passes for city employees, paving and paving maintenance, bridge construction, snow removal, street cleaning or

other highway expenses as conditions precedent to the renewal and extension of franchises.

As for hope from the fundamental relief of raising fares, there is practically none. The tendency is rather the other way. In the noteworthy case of Cleveland it has taken such extreme form that the border line between regulation and confiscation has been reached, if not passed. At any rate, it cannot be disputed that those who invested in Cleveland Electric Railway Company stock prior to the famous three-cent fare agitation lost heavily, and that the test of "physical valuation," as applied to the Cleveland lines in settlement, would in many other cities have had the more drastic effect of wiping out the stock altogether, and even, in some cases, part of the underlying stocks and bonds as well. One who can hope for such a general, radical change in public sentiment as to reverse completely the tendencies we have mentioned and so to make investments in city street railways increasingly attractive instead of increasingly unattractive would, indeed, be an optimist. The increasing cost of labor and materials, being in large part directly or indirectly the result of the increasing overproduction of gold, which, as far as can now be seen, will continue indefinitely or even increase, is thus practically a permanent and increasing "bear" factor with present rates of fare. The signs of relief from public service commissions are indeed faint. They seem to indicate merely the inevitable truth that the cities, in self-defense, cannot afford to have their transportation systems entirely wrecked. An assessment, scaling down or elimination of the common stock, or even, in many cases, of some of the underlying or "guaranteed stocks," would often not only not be contra-indicated, but would, on the other hand, often be the best solution. The fact that often these represent no real "physical valuation" would be small comfort to those who thus may see their investments wiped out entirely or scaled down.

An additional bear factor is the fact that, though proper maintenance is as essential to the getting of revenue and to the rendering of a suitable service as it is to the preservation of the assets against which securities are issued, the revenue of American street railways has not been charged with sums even approximating the actual costs of maintenance. This has resulted in an erroneous idea of past profits. This often was exactly what was intended as an aid to the "insiders" in unloading to advantage. The increased

capitalization which has of necessity resulted has in the past often been supplied by the issue of additional stock or bonds, often during the reorganizations and consolidations previously mentioned. At present the results are showing in the "rehabilitation" idea now becoming the keynote in most of our largest cities. Chicago has been spending \$50,000,000 in making over her lines, but Cleveland, Baltimore, Brooklyn and New York and other cities are already feeling the need for enormous rehabilitation expenditures. This lack of proper maintenance in the past has been an aid in making a proper showing on paper and in meeting fixed charges and dividends. It will now become an increased fixed charge itself—an additional burden to be reckoned with in the future.

Only in the most exceptional and unusual cases can there be hope for appreciation in stock values of city properties, especially those of the larger cities. On the average, they should be tending and are tending toward a lower level, and receiverships should become more frequent.

Suburban or Old-style Interurban Electric Roads

The suburban and other lines of the type common in the East, but found elsewhere; the sort that run beside, or more usually upon, the country highways and through the streets of suburbs or small towns, are distinct from the city line and from the real interurban. They are in part survivals showing the evolution of the interurban, for the prototype of the interurban, like that of the original railroad was simply a modification of the highway. Such lines save the cost of private right of way and have the advantage of running by the doors of established homes, both in the towns and along the highways. While they often charge five cents for a ride of varying lengths, yet this is simply a convenient way of collecting the fares, due to the fact that most of the rides are not of great length. Franchises and rates of fare usually do not menace the future as seriously as in the case of the city lines, though they are often operated under township and county franchises which, at times, can be renewed only upon onerous conditions. The fare is often not even up to the limit allowed by state law.

Much of the traffic seems practically permanent and destined to increase naturally with the growth of the country. Such of these

lines, however, as draw from the same territory and, in fact, often for considerable distances practically parallel existing steam roads are exposed to the probable future competition from electric traction on these roads, which with equally frequent headway and stops, combined with the high standard of the present steam road construction and terminal advantages, would readily rob them of much of their present traffic—in many cases of such a large proportion as to make the bearing of their bond interest difficult or impossible. A modern interurban in most cases would be unlikely to be constructed in the same territory, but in case of the construction of such a road it would, in proportion to its closeness to the suburban or old-style interurban, appropriate the traffic.

While the fare and franchise problems, often entirely nonexistent, are seldom as serious as in the case of the city lines, and while in many cases the country would not justify a real interurban, and no steam road is close by to change traffic conditions by electrification, yet the limitations even under the more fortunate conditions are marked. High speed cannot be obtained upon a highway, even in case considerations of public safety and franchise or ordinance obstacles should not intervene. The general alignment of such lines is seldom good, and the highways upon or along side of which they are usually built are laid out with sharp turns and heavy grades—without engineering skill or common sense. In fact, as a rule, every principle of railway location and economics is violated with a consistency that is maddening to the civil engineer. The electric car can, it is true, show a remarkable superiority to a steam train in climbing the heavy and broken grades and in taking the sharp curves, but this is an abuse, not a proper use, of the superiorities of electric traction. The results show not only in the decreased speed and maximum load possible, as compared with similar equipment on a proper location, but also in the increased coal bill. Hopes for much future freight and long-distance passenger traffic should not cheer the stockholder. With, as a rule, but little to offset the increasing tendency of wages and cost of equipment, there can only in isolated and special cases be much increase in dividend yield and safety. On the average, the prospect is not favorable and in many cases it is distinctly unfavorable.

Modern or True Interurban

We now come to the modern or true interurban. In a typical case, it represents a high-speed passenger electric line, carrying, however, in addition to its passenger traffic, express and freight, and running on private right of way through the country or even through the smaller towns. These lines center largely around Los Angeles, Indianapolis, Cleveland, Dayton, Detroit, Toledo, Columbus, Milwaukee, Seattle, Portland and Spokane. They, however, are in no sense suburban. They usually connect towns and cities separated by considerable distances from one another, and a large proportion of their traffic is for distances of over ten miles, a considerable proportion for over twenty-five miles. The greatest mileage development is in Ohio, but the Indiana star formation, with links connecting almost everywhere, is the most completely centralized, radiating in every direction from Indianapolis. The traffic is heaviest, however, around Los Angeles; and, on the whole, the great Illinois Traction System, with five hundred miles of well-balanced and connected lines, not centering in any one large city, is the most typical of the extreme interurban development.

There was no considerable suburban population in the Middle West or Pacific Coast sections at the period when the first Eastern city lines extended cautiously along the highways near the larger cities, following the established population and keeping close to the original "street car" idea. The town or city lines, built, of course, for slow speed and local traffic, were naturally joined, or the short intervening links filled in by separate companies, but with the same ideas of economics and construction. There was no idea of rivaling or of seriously competing with the steam roads. They hoped for only the leavings, and, as far as they affected the steam roads, to be merely feeders.

Often, especially in New England, this tendency was increased by the fact that in large part they have come under the control of the steam roads, especially under that of the New York, New Haven & Hartford. In Pennsylvania, the only Eastern state having a large area coupled with a widely scattered population such as would naturally lead to true interurban development on a large scale, such development was prevented by the dominating influence of the steam roads in the legislature, preventing until recently such development

by not allowing electric roads the right of eminent domain, without which true interurban construction is impossible, or the right to haul freight and express, thus removing a present considerable source of income and a future one of especial promise. They in large part suited the conditions of dense population along established highways, and the short distances involved in the first extensions. They avoided the initial expense of private right of way, which in such well-populated sections would have been heavy.

The real interurban was an equally natural development of the more scattered towns and small cities of the Middle West, and especially of Ohio, Indiana and Illinois. Private right of way was naturally not as valuable as in the more thickly settled East, and properly skilled right-of-way agents could induce the more progressive Western landholder to make proportionately greater sacrifices than would have been possible farther east. Higher speed was more necessary by reason of the greater distances and more scattered population; the private right of way made considerations of alignment, gradients and curvature possible, and these, in turn, made possible the required speed. The electric road began to come into its own—no longer a street car line, any more than a railroad is an ordinary road with rails laid upon it. The more progressive West assimilated gradually the idea that curvature and gradient affected draw-bar pull in the same way whether the motive power be mule, electric or steam; and, as the science of railroad engineering had long since been perfected by the Rocky Mountain experience of the great transcontinental locating engineers, it became largely a matter of applying the science of steam railroad engineering to the problems of electric construction, the economics of which were worked out by common sense, business acumen and actual experience, as modifications of the economic theory of railway location as exemplified in *Wellington*, the classic authority of the railroad locating engineers.

The electric road had come to its own at last. Instead of being a dependent feeder of the steam road, the interurban had a definite field of its own. The more frequent headway and stops closer together, made possible by the direct advantage of electric over steam traction and through the indirect effect of the smaller units of operation made possible thereby, together with the more cleanly, pleasant and comfortable service, often more convenient to

residence and business, placed them beyond fear of serious competition from steam traction on shorter hauls. At first it was assumed that the limit of through service that could really get traffic from steam competition was about twenty-five miles; but now it is found that in the case of the limited cars in the Middle West, by the construction improvements above mentioned, by improvement in operation and by cutting out unimportant stops, the time of accommodation trains on steam roads can be approximated or exceeded, and thus, with the other advantages named, they are able to compete in an increasing number of cases for much greater distances. For example, the Fort Wayne & Wabash Valley Traction Company in the face of direct steam competition does the bulk of the passenger business between Fort Wayne and Indianapolis, a distance of one hundred and thirty-seven miles.

These numerous advantages, together with the increase in the number of country and suburban homes resulting, and a change in farming methods close to the lines, causing an increased tributary population, especially by the growth of trucking and dairy farming, made possible by their freight service and itself giving a constantly increasing passenger and freight traffic, naturally caused the promoting, financing and building of interurban roads to proceed with great rapidity. Hopes of a great and constantly increasing return caused an unusual speculative enthusiasm.

Satisfactory statistics of interurbans are unusually difficult to obtain, but the first annual report of the Ohio Railroad Commission covering electric roads and giving elaborate details of the business of some sixty electric roads coming under its jurisdiction for the year ending June 30, 1908, the second report is not yet available, is unusually satisfactory. The larger city companies are not included, although in several cases the interurban roads operate city properties and the earnings of these properties are included in the total earnings and are considered under the total capitalization. The same is true of several properties operating lighting and power systems. Nevertheless, these figures are interesting as showing the average conditions, and are unusually free from the mingling of subway, elevated, city, surface, suburban, interurban, power, light and even gas statistics that make the usual report a veritable hodge-podge that is neither fish, flesh nor fowl.

The sixty companies represent 2,794 miles of track. The stock
(669)

is \$136,461,000 and the outstanding bonds \$89,308,000, a total capitalization of about \$80,000 per mile, including, of course, both stock and bonds. The total so-called "cost of construction" to date is given as \$185,976,000, or on a basis of \$66,485 per mile. Some of the older roads which have gone through periods of reconstruction and consolidation—in some cases receiverships—represent as high as \$100,000 per mile. On the other hand, some of the later and more modern roads report investments of only \$28,000 to \$30,000 per mile. The Scioto Valley, a high type of third-rail line, equipped for heavy freight, reports an investment of \$67,000 per mile. Twenty-two of the sixty companies failed to earn their fixed charges, their total deficit being \$566,243. Twenty companies paid dividends aggregating \$808,000—considerably less than 1 per cent. on the total outstanding stock of the sixty roads, and of these dividends only \$436,000 was paid by the operating companies, the balance being guaranteed dividends paid to stockholders of leased lines. Two of the operating roads paying dividends have no bonded indebtedness and were built and are operated by the owners. Only two roads reported operating expenses of less than 50 per cent., while three claimed it cost them more than 100 per cent. to operate. The average of the sixty companies was 61.47 per cent.

Most of the roads are developing the freight business, but the greatest percentage of freight business to the total was that of the Toledo & Western Railway, which reported 33.51 per cent. of the gross as coming from freight, while the Eastern Ohio and the Interurban Railway and Terminal Company each reported 19 per cent. The average for forty-nine roads doing a freight business was but 5.81 per cent. of the total gross business, while light, power and "other items," the latter including, of course, express, United States mail and car advertising, aggregated 5.93 per cent. of the gross.

The average fare per passenger is 11.5 cents; the highest that of the Scioto Valley, 28.1 cents, while that of the Lake Shore Electric, in spite of its long-haul Cleveland-Toledo business, is but seventeen cents per passenger. These figures show that, in spite of the increasing long-haul development, the short-haul business predominates. The average of the steam roads of Ohio was sixty-four cents per passenger.

The conclusion is obvious that, as shown by these typical figures, interurban railroad stock has not usually been a good in-

vestment; in fact, has not, as a rule, yet attained the status of a true investment at all. The figures, in fact, on their face make a much worse showing than those of the city or suburban lines which, as we have seen, are themselves not, as a rule, desirable investments.

In reality, however, these figures show nothing that does not justify the favorable treatment given previously of the true interurban, nor do they give us any reason to believe that the speculative enthusiasm in promoting, financing and building the interurbans was not justified. Some understanding of the true inwardness of the financing and construction is, however, necessary.

The ways and means were almost infinite, but in general the stock represented no real investment. Among those engaged in the work of financing and constructing such roads it is frankly regarded as "velvet." It is certainly safe to say that there is not an interurban road in Ohio that actually represents an investment of \$66,485, the average "cost of construction" per mile as reported by the sixty companies. Indeed, in amount really invested the half of this average "cost of construction" has not been, as a rule, exceeded in Ohio.

The most noteworthy groups of financiers and constructors of the best types of the modern interurban are in Cleveland. One of the many methods is to form a syndicate, the members of which pay in previously subscribed installments as the construction progresses, and the construction work and installments paid furnish collateral for borrowing. In the meantime the investors have certificates of participation to show for the amount invested, or even only receipts for the amount paid in. When the road is sold entire, by vote of the controlling interest of the syndicate, or by the syndicate managers themselves, by virtue of the authority vested in them by the syndicate agreement, there is often a very considerable percentage of profit made upon the entire amount spent in construction, a large part of which, say one-half in this case, is borrowed, leaving a still greater profit upon the speculative investment of the participants. In case the road cannot be disposed of as a unit, the syndicate may issue bonds for an amount equal to or greater than the cost of the road. In such cases the syndicate managers often operate the road for a while, trying to work the earnings up so that it can "bear the bond interest," as they say. Actual cost is not considered as the real criterion of the proper amount of bonds to be

issued. The proper value is regarded as the earning power capitalized—what the road is worth as a going concern. If this is not more than the actual cost, the road is a disappointment. The stock is an afterthought, pure "velvet"—the capitalization of the hopes and expectations of the future. The fact that in a typical cost of financing such hopes and expectations have not yet been realized is no argument that they will not be. Part of the stock may be given with the bonds to the syndicate participators in case of distribution due to the dissolution of the syndicate, or with the bonds as a bonus in case of sale, the participants retaining other stock as part of all their profit, in the latter case being repaid for their investment entirely from the proceeds of bond sales. In connection with the general syndicate mentioned above, there may be also an underwriting syndicate, composed altogether or in part of the real powers behind the financing. A construction company almost always, and perhaps an engineering company, in addition, each also composed in part or altogether of the same powers, may play their part, and the trust company or companies that carry the loans, and perhaps also join in the underwriting syndicate mentioned, must be reckoned with. Some of those really "behind the proposition" are probably directors or officers of the trust company. Control of, or a "pull" with, one or more trust companies is a point of fundamental importance. In short, there are wheels within wheels and wheels within the latter. The members of the general syndicate may be very far from being on the real inside. There are often many cellars below the ground floor, and but few know their contents.

This statement of one of the many examples is not meant as a criticism of methods or men. The participants in the general syndicate in the case given may not be on the real inside, but, if they go in on the propositions of certain experienced groups, they almost invariably make money with very little effort on their own part, and not only once but often, turning their money over every two or three years, investing in one road after another under conditions varying in the details of financing, but in general similar. They have every reason to intrust their speculative investments to the men whose financial power and business ability have repeatedly made money for them. These real insiders, too, who promote finance and build such roads cannot be expected to do it for an

ordinary investment return, or even for such proportionate gains as the ordinary participant in the general syndicate secures. Such men are financial powers and are leaders in the interurban development, throwing aside precedent and developing an admirable public utility which has already become a most important factor of betterment in the sections they operate in; and with resources and ability that would win excellent returns in a less risky and harrowing business, they cannot be expected to develop such betterments for health's sake.

Our conclusion cannot well be other than that the stocks of many of the larger and better systems which have gone through most of their construction development offer excellent speculative investments. With, as a rule, steadily increasing population, wealth and industry tributary, practically no franchise difficulties, right of way and terminals rapidly increasing in value, a growing proportion of freight and express traffic, and no serious fare difficulties—as a rule their fare is below the maximum limit allowed—the tendencies are in the main toward betterment. Public opinion is distinctly favorable. In case of close competition with steam roads the latter are increasingly inclined to abandon more and more of the shorter haul passenger traffic to them, while the electric roads are successfully competing for constantly increasing distances. By the connecting of existing roads by new construction, their own interchange of passengers, freight and express is increasing. Further development in the line of sleeping- and dining-car accommodations may ultimately be an important additional factor in increasing their long-haul passenger traffic.

Interchange of freight with steam roads is already established in several important cases. Large, well-balanced and well-connected systems, like the Illinois Traction, of Illinois, and the Union Traction, of Indiana, have far less to fear from the steam roads of the same section than the latter have from them. The stocks are, of course, in their infancy as investments, and are usually not dealt in actively, but for the investor who is discriminating and who desires something in which the future holds strong speculative possibilities, many of them should be attractive. The groups of financiers who built the better lines successfully discounted the immediate future and have realized their profits, but they built for a greater future, which has not yet been realized.